

THE **BOEING** COMPANY

AD 409 491

DZ-20031-6

BOEING COMPANY

CONTRACT NO.

6

DOC

BI-M M TACTICAL Remote  
LOCATIONS Support VEHICLE  
REQUIREMENTS PLAN, GRAND  
Forks Air Force BASE,

L. A. Jackson

3-14-60

REPRODUCED FROM  
BEST AVAILABLE COPY

NO  
C

PRC

# THE **BOEING** COMPANY

NUMBER DZ-20031-6

UNCLASSIFIED TITLE Technical drawing of aircraft engine

Engine model - Grand Forks Air Force Base

MODEL NO 1-143 CONTRACT NO 1-143-143

ISSUE NO 6 ISSUED TO DDC

CLASSIFIED TITLE \_\_\_\_\_

CHARGE NUMBER

*[Empty rectangular box for drawing or notes]*

PREPARED BY L. A. Jackson

3-14-63

SUPERVISED BY [Signature]

APPROVED BY [Signature]

CLASS AND DISTR DTIC info  
APPROVED BY [Signature]

3-26-63  
DATE

MODEL WS-133B DOCUMENT NO. D2-20031-6

**TITLE** BI-MM TACTICAL REMOTE LOCATIONS TYPICAL A&CO SUPPORT VEHICLE  
REQUIREMENTS PLAN

[illegible]

# TABLE OF CONTENTS

	PAGE
1.0 Introduction . . . . .	1
2.0 ACO/SFC Numbered Identified Licensed Vehicles . . . . .	3
2.1 ACO/SFC Vehicles Description and Usage . . . . .	3
2.1.1 ACO 696 - Truck/Mounted, Demineralizing Unit . . . . .	
Ion Exchanger . . . . .	3
2.1.2 ACO 4054 - Crane, Mobile, Truck Mounted . . . . .	3
2.1.3 ACO 4116 - Truck, Tractor, 25,000 Lb. GVW . . . . .	4
Spec. No. 2277-L	
2.1.4 ACO 4130 Truck, Tractor, 39,000 Lb. GVW . . . . .	4
Spec. No. 2286-L	
2.2 ACO/SFC Numbered Licensed Vehicle Forecast . . . . .	5
3.0 Non-ACO Identified Licensed Vehicles . . . . .	6
3.1 Non-ACO Vehicle Description and Usage, ACO Team	
Assigned . . . . .	6
3.1.1 Truck, 16 Ft. Flatbed with Hydraulic Crane	
Spec. No. 2198-L . . . . .	6
3.1.2 Shelter, Mobile . . . . .	6
Spec. No. 402080	
3.1.3 Truck, 9 Ft. Van, with Heat and Hoist . . . . .	7
Spec. No. 2290-L	
3.1.4 Truck, 9 Ft. Van with Hoist (Ordnance Handling)	
Spec. No. 2291-L . . . . .	8
3.1.5 Bus, Travelall, 9 Passenger . . . . .	8
Spec. No. 2278-L	
3.1.6 Truck, 9 Ft. Van . . . . .	8
Spec. No. 2284-L	

# TABLE OF CONTENTS (continued)

		PAGE
3.1.7	Truck, 9 Ft. Van with Heat . . . . .	9
	Spec. No. 2289-L	
3.1.8	Truck, 12 Ft. Van with Hoist and Heat . . . . .	9
	Spec. No. 2292-L	
3.1.9	Truck, 7½ Ft. Panel with Heat . . . . .	10
	Spec. No. 2288-L	
3.1.10	Truck, 7½ Ft. Panel . . . . .	10
	Spec. No. 2274-L	
3.1.11	Truck, 7½ Ft. Pickup with 4 WD, & Power Winch .	10
	Spec. No. 2293-L	
3.2	Non-ACO Vehicle Description & Usage General Support	11
3.2.1	Bus, 8 Passenger . . . . .	11
	Spec. No. 2275-L	
3.2.2	Bus, 17 Passenger . . . . .	11
	Spec. No. 2276	
3.2.3	Bus, 41 Passenger . . . . .	12
	Spec. No. 2285-L	
3.2.4	Sedan, 4-Door, Standard and Compact . . . . .	12
	Spec. No. 2272-L (Standard)	
	Spec. No. 2271-L (Compact)	
3.2.5	Sedan, 4-Door, with Air Conditioner . . . . .	13
	Spec. No. 2272-L	
3.2.6	Station Wagon, 6 Passenger, Standard & Compact	13
	Spec. No. 2272-L (Standard)	
	Spec. No. 2271-L (Compact)	

# TABLE OF CONTENTS (Continued)

		PAGE
3.2.7	Utility Wagon, 4-Wheel Drive . . . . .	14
	Spec. No. 2294-L	
3.2.8	Truck, 6 Ft. Pickup Compact . . . . .	14
	Spec. No. 2295-L	
3.2.9	Truck, Pickup, 6½ Ft. with or without Canopy . .	14
	Spec. No. 2273-L	
3.2.10	Truck, Pickup, 4-Wheel Drive . . . . .	15
	Spec. No. 2279-L	
3.2.11	Truck, 8 Ft. Pickup . . . . .	15
	Spec. No. 2296-L	
3.2.12	Truck, 8 Ft. Pickup with Camper . . . . .	15
	Spec. No. 2287-L	
3.2.13	Truck, 9 Ft. Flatbed Body . . . . . 4 . . . .	16
	Spec. No. 2280-L	
3.2.14	Truck, 18 Ft. Flatbed with or without Lift Gate	16
	Spec. No. 2281-L (Without Lift Gate)	
	Spec. No. 2282-L (With Lift Gate)	
3.2.15	Trailer, Semi 40 Ft. Flatbed . . . . .	17
	Spec. No. 2283-L	
3.3	Non-ACO Identified Licensed Vehicle Forecast . . . .	17
3.4	SATAP & DOD Required Licensed Vehicle Forecast . . .	17
4.0	Major Items of Material Handling Equipment . . . . .	19
4.1	Material Handling Equipment Description & Usage . .	19
4.1.1	Truck, Forklift, ACO Numbered . . . . .	19
4.1.1.1	ACO 3078, Truck, Forklift . . . . .	19
4.1.1.2	ACO 4184, Truck, Forklift . . . . .	19
4.1.2	Truck, Forklift Non-ACO Numbered . . . . .	20

# TABLE OF CONTENTS (continued)

	PAGE
4.1.2.1	Forklift, 4,000 Lb. . . . . 20
4.1.2.2	Forklift, 6,000 Lb. . . . . 20
4.1.2.3	Forklift, 8,000 Lb. . . . . 20
4.1.3	Truck, Pallet, Electric Walkie, 4,000 Lb. Capacity . . . . . 21
4.1.4	Walkie Stacker, 2,000 Lb. Capacity . . . . . 21
4.1.5	Truckster . . . . . 21
4.2	Material Handling Equipment Forecast . . . . . 22
5.0	General Information . . . . . 23
5.1	Aircraft . . . . . 23
5.2	ACO/MGE/Peculiar Vehicles . . . . . 23
5.2.1	ACO/MGE/Peculiar Vehicle Description & Usage . . 23
5.2.1.1	ACO 4024 Re-Entry Vehicle (R/V) & Guidance and Control (G&C) . . . . . 23
5.2.1.2	ACO 4031 - Truck, Van (Mechanical Maintenance) . . . . . 23
5.2.1.3	ACO 4059 - Semi-Trailer, Transporter - Erector (TE) . . . . . 24
5.2.1.4	ACO 4062 - Vehicle, Operational, Targeting 24
5.2.1.5	ACO 4063 - Truck, Van Electronic Maintenance 25
5.2.1.6	ACO 4075 - Truck, Tractor, Transport Erector (TE) . . . . . 25
5.2.1.7	ACO 4119 - Truck, Van, Special Escort . . . 25
5.2.1.8	ACO 4129 - Trailer MCAT (Missile Container & Transporter) . . . . . 25

## GLOSSARY

A&CO	Assembly and Checkout
AFB	Air Force Base
BISU	Base Interface Surveillance Unit
CSA	Contract Support Area
DA	Dispatch Area
DOD	Department of Defense
G&C	Guidance and Control
LCF	Launch Control Facilities
LF	Launch Facilities
MCAT	Missile Container and Transporter
MGE	Maintenance Ground Equipment
MRO	Maintenance, Repair and Operating Supplies
O&M	Operation and Maintenance
OGE	Operation Ground Equipment
OOAMA	Ogden Office of Air Materiel Area
PDM	Predelivery Maintenance
R/V	Re-entry Vehicle
SATF	Site Activation Task Force
SFC	Special Facilities Contract
SMSA	Strategic Missile Support Area
SSCEM	Shipping and Storage Container Ballistic Missile
TE	Transport Erector



# LIST OF FIGURES

FIGURE		PAGE
1	ACO/SFC Numbered Licensed Vehicle Forecast . . . . .	
2	Non-ACO Identified Licensed Vehicle Forecast . . . . .	
3	SATAF and DOD Required Licensed Vehicle Forecast . . . . .	
4	Material Handling Equipment Forecast . . . . .	

## LIST OF REFERENCES

### Documents

1. Aero-Space, AFBM 60-59 Volume 85 Mobile Equipment
2. Aero-Space, D2-12650, "Remote Locations Transportation Vehicles - Acquisition Identification, Maintenance, and Disposition Instructions".
3. Aero-Space, "Leased Vehicle Specifications (Unnumbered)
4. Aero-Space, D2-9914, "Base Installation Minuteman Production Directives Engineering Operations".
5. Minuteman Base Installations Directives 8 and 23.

### Memorandums

6. 2-3823-20-269, April 10, 1963, H. J. Enns to All Base Managers, Subject: Licensed Vehicle Procurement for Remote Tactical Minuteman Bases
7. 2-4164-4-492, April 9, 1963, R. R. Hearn to All Base Managers, Subject: Minuteman Programmed Vehicle Requirements Deviation From Approved Specifications and Modifications
8. 2-3823-20-176, April 4, 1963, G. D. Nible to All Base Managers, Subject: Licensed Vehicle Procurement for Remote Tactical Minuteman Bases
9. 2-4166-2-2463, March 27, 1962, B. G. Moss to All Base Production Control Unit Chiefs, Subject: Vehicular Equipment Standards, Minuteman Operational Wing
10. 2-4103-2-76, May 8, 1961, L. A. Wood to Distribution "DDO" - Headquarters, Subject: Transportation Vehicle Management Aero-Space Division Remote Bases

LIST OF REFERENCES (continued)

Manuals

11. Tool and Production Planning Manual Minuteman Supplement,  
M31-01-1, March 6, 1962.

Procedures

12. Aero-Space Administration Procedure, 1730, "Transportation  
Vehicle Management - Remote Sites".

## 1.0

## INTRODUCTION

This document defines the Special Facilities Contract (SFC) type vehicle requirements and all major items of material handling equipment to accomplish assembly and checkout (A&CO) of the Operational Minuteman Wings. Document D2-20031 requirements are not alike for all Wings, therefore a dash number will identify the document for each Wing as follows:

Wing I	Malmstrom AFB	D2-20031-1
Wing II	Ellsworth AFB	D2-20031-2
Wing III	Minot AFB	D2-20031-3
Wing IV	Whiteman AFB	D2-20031-4
Wing V	Warren AFB	D2-20031-5
Wing VI	Grand Forks AFB	D2-20031-6

This document has been divided into sections. Section 2.0 provides a brief description and usage of all Special Facilities Contract (SFC) ACO vehicles used by Assembly and Checkout (A&CO) teams. There also is included a forecast of the quantities of ACO/SFC vehicles needed each month at the wing until phase out.

Section 3.0 contains non-ACO identified vehicles such as sedans, buses, trucks, and trailers. A brief description of all SFC vehicles used by Operation & Maintenance (O&M) Predelivery Maintenance (PDM), Assembly & Checkout (A&CO) teams and for general Transportation of personnel and equipment is included. The forecast in this section has been divided into two areas. First, those vehicles required to support Boeing, and second, those vehicles required to

1.0

## INTRODUCTION (continued)

support Department of Defense (DOD) and Site Activation Task Force (SATAF). Both forecasts show the quantities needed each month by Boeing and DOD.

Section 4.0 contains all major items of material handling equipment which are powered by gasoline or electric motors. The forecast included in this section illustrates the required material handling equipment for each month until phase out.

Vehicles that do not fall into the sections previously described will be listed in Section 5.0, GENERAL INFORMATION. This includes such items as aircraft and ACO/MGE PECULIAR vehicles.

This document will be revised as necessary to reflect current changes in vehicle requirements and usages. The forecasts will be revised and updated on a monthly basis.

## 2.0 ACO/SFC NUMBER IDENTIFIED LICENSED VEHICLES

This section includes a brief description, and usage of all ACO vehicles used by A&CO teams. Some of these type vehicles are also used in support of the Contract Support Area.

### 2.1 ACO/SFC VEHICLES DESCRIPTION AND USAGE

#### 2.1.1 ACO 696 - Truck Mounted, Demineralizing Unit, Ion Exchange Spec. No.

Truck, Ford Model C 600 or equal chassis, with insulated van body 15 ft. 10 inches, inside length, 7 ft. 6-inch height, and 7 ft. width, double rear doors opening the full width. Heating unit is capable of maintaining a 40 degree minimum temperature in the van. The following equipment will be contained in the van: one (1) 850 gallon steel, chemical-proof lined tank skid mounted, deionizer unit, pump (ACO 427) and filter (ACO 311) with necessary hose and connectors.

Required by the A&CO crew for flushing and charging the Guidance and Control cooling unit Figure "A" 1214, and the G&C storage tank Figure "A" 1317 after installation.

#### 2.1.2 ACO 4054 - Crane, Mobile; Truck Mounted Spec. No.

Requirements are boom length 35 ft., capacity 17,000 lb. lift with 12 ft. working radius, and 360 degree swing. Must be capable of traveling 40 miles per hour over public roads without special permits. Crane and carrier are gasoline operated.

2.1.2 (continued)

This unit is required by the assembly crew installing Figure "A" 1604 secondary access door, standby diesel generator and environmental control chiller. This crane may be required for placing the missile suspension system.

2.1.3 ACO 4116 - Truck, Tractor, 25,000 lb. GVW

Spec. No. 2277-L

This tractor is intended to be functionally equivalent to Figure "A" 4116. Standard 4 x 2 tractor 5-ton with standard 5th wheel, air brakes, and two-way radio. The air brakes and electrical couplings must be compatible with couplings on semi-trailers ACO 658, 659 and 4024. A two axle tractor only must be used with ACO vans listed above.

Required by the A&CO assembly teams to pull ACO 658 and ACO 659 vans from CSA to Launch Facilities and Launch Control Facilities areas and to pull G&C van from CSA to LF area, and G&C van for EDM. Also used to pull utility type 40 ft. flat bed semi-trailers between railheads, CSA and Dispatch Area.

2.1.4 ACO 4130 - Truck, Tractor, 39,000 lb. GVW

Spec. No. 2286-L

This tractor must be capable of carrying a 5th wheel load of 40,000 lb. at a speed of 10 mph. when fully loaded and a gross combined weight of 135,000 pounds.

2.1.4

(continued)

This is required to transport the Shipping & Storage Container Ballistic Missile (SSCBM) trailer (Fig. "A" 4129) within Strategic Missile Support Area (SMSA) and on the highway, and for positioning the SSCBM trailer for missile transfer.

The requirement for this equipment will be fulfilled by joint use by Boeing and Air Force of the operational equipment. No separate procurement is to be made by Boeing.

2.2

ACO/SFC NUMBERED LICENSED VEHICLE FORECAST

Figure one (1) contains the requirements of ACO vehicles programmed by calendar month showing vehicle requirements for the present month, build-up through June, 1964. This schedule will be revised on the first/of each month.



### 3.0 NON-ACO IDENTIFIED LICENSED VEHICLES

Non-ACO identified vehicles include sedans, buses, trucks and trailers used to transport personnel, supplies, and equipment from rail heads, air fields, and vendors to CSA, and CSA to DA's. Some of these non-ACO vehicles are required for Boeing administrative, SAMAF, and DOD personnel.

### 3.1 NON-ACO VEHICLE DESCRIPTION AND USAGE (ACO TEAM ASSIGNED)

These vehicles are specifically assigned to assembly and checkout, Integration, Prododelivery Maintenance, Operation & Maintenance and Cable Maintenance teams.

Some types of these vehicles may be used as for general support requirements at the CSA.

#### 3.1.1 Truck, 16 Ft. Flatbed with Hydraulic Crane Spec. No. 2198-L

The crane is mounted directly back of truck cab leaving 16 ft. cargo space. Crane capacity is 1800 lbs. at a 22 ft. working radius.

This unit is capable of carrying the complete Figure "A" 1280 and Figure "A" 1303 to the LF and lowering each into position. This unit is also capable of placing security system equipment at the LF. The vehicle has the capability of transporting and loading or unloading three (3) tons of cargo without the use of any other piece of equipment.

#### 3.1.2 Shelter, Mobile Spec. No. 402080

3.1.2 (continued)

The shelter is a 32 ft. x 8 ft. tandem axle house trailer with the following facilities and usage.

1. Office space with small desk, one (1) swivel chair, and one (1) five drawer file cabinet.
2. Sanitary facilities.
3. Heating facilities.
4. One (1) table, six (6) benches, and emergency tinned rations required to maintain a twelve man crew for 48 hours.
5. Provides tool storage for Maintenance, Repair & Operating Supplies. (MRO) expendable tools and standard spare parts at each LF and LCF (Per D2-20036).

Required for office, storage, eating space, and sanitary facilities. These shelters will be placed at the LF and/or LCF when A&CO begins and will remain until sell off.

3.1.3 Truck, 9 Ft. Van, with Heat and Hoist.  
Spec. No. 2290-L

The Van's body is 9 ft. long, 88 inches wide inside and 74 inches high. Double doors at rear open to full body width. The hoist has a capacity of 500 pounds at a radius of 5 ft. and capable of 225 degree swing.

The Van is used by EDM, OMM, and A&CO crews to transport equipment requiring temperature control, as well as safety barriers and other small tools from Dispatch Area (DA) to Launch Facility (LF) and Launch Control Facility (LCF).

3.1.4 Truck 9 Ft. Van with Hoist (Ordnance Handling)

Spec. No. 2291-L

The Van body and hoist are identical to 9 ft. Van described in paragraph 3.1.3 less heater. Special containers and means of securing must be provided with this van for protection of ordnance devices during handling and transportation.

Used by A&CO and PDM crews to transport ordnance devices (parts of Figure "A" 1202, 1208 and 1243) from CSA to LF's during A&CO. Used to lower the ordnance devices into the LF.

3.1.5 Bus, Travelall, 9 Passenger

Spec. No. 2278-L

This vehicle may be an International Model C-100 or equal.

No special equipment other than standard safety equipment is required.

This vehicle is used to transport personnel and small tools by the assembly checkout, integration, and missile emplacement crews. Required at CSA to provide taxi and bus service between test, warehouse Strategic Missile Support Base (SMSB) and office areas.

3.1.6 Truck, 9 Ft. Van

Spec. No. 2204-L

Standard 9 ft. van identical to van described in paragraph 3.1.3 less the hoist and heating units.

3.1.6 (continued)

Required by Assembly Crews #2 and #3 to transport tools and material between DA, LF and LCF's. This vehicle is also used in CSA area to transport equipment between test, warehouse, and DA's. Used for general hauling from air field and railhead depots.

3.1.7 Truck, 9 Ft. Van with Hoist

Spec. No. 2289-L

Standard 9 ft. van identical to van described in paragraph 3.1.3.

Required by Assembly Crews #3, #4 and Checkout Crew #6. Used to transport tools and electronic equipment between CEA, DA, LF and LCF areas during A300.

3.1.8 Truck, 12 Ft. Van with Hoist and Hoist

Spec. No. 2292-L

Van-type body 12 feet long and 88 inches inside width by 79 inches high, with double rear doors opening the full width and height of the body. The hoist has a 1000 lb. capacity, 60-inch swing radius, 225 degree swing and hook fall 30 feet below ground level. Equipped with Hunter Model UH-47-3 heater with 12-volt electric fuel pump.

Required by #2 LF and LCF assembly crews to transport tools and electronic instruments requiring temperature control and other material from the DA to LF and LCF's during assembly

Required by OSM crews for maintenance of (1) air-condition

3.1.8 (continued)

and Rocheat units, (2) routine O&M of LF's (3), routine O&M of LCF's and, (4) unscheduled O&M requirements.

3.1.9 Truck, 7½ Ft. Panel with Heat  
Spec. No. 2288-L

Chevrolet Model C-1405 panel or equal with plywood or sheet metal bulkhead back of driver's seat and a Hunter Model UH-47-3 heater with 12 volt electric fuel pump installed to provide heat in the cargo space.

Required by the LF checkout crews (#1, #2, and #5), the targeting test crew, and Base Interface Surveillance Unit (BISU) in support of the Corps of Engineers. Used to transport tools and electronic test equipment requiring controlled temperature from DA to LF and LCF's during A&CO. It is also used by Cable Maintenance Crews.

3.1.10 Truck, 7½ Ft. Panel  
Spec. No. 2274-L

Identical to panel described in paragraph 3.1.9 less heating unit. Required by the following ACO crews. LF Assembly (#2, #3 and #4), LCF Assembly, LCF Checkout, Welding, and Cleanup Crews. Required to transport assorted tools and material, welding, and cleaning equipment between DA, LF and LCF areas.

3.1.11 Truck, 7½ Ft. Pickup with 4 Wheel Drive and Power Winch (Cable Maintenance)  
Spec. No. 2293-L

3.1.11 (continued)

Specifications for this vehicle include, 7 1/2 ft. pickup box, 4-wheel drive with lock hubs, locking differential, heavy duty winch and cable powered from the transmission power takeoff and 4-speed transmission with power takeoff.

This vehicle is required by the Cable Maintenance Crews during the ASCO period to transport personnel and equipment both on the highway and cross country in all types of weather.

3.2. NON-ASCO VEHICLE DESCRIPTION AND USAGE GENERAL SUPPORT.

These vehicles are usually motor pool assigned and are used for general purpose requirements of each department at the base.

3.2.1 Bus, 3 Passenger -

Spec. No. 2275-L

Ford Model E-100 Econoline Station Bus or equal 4-door, 8 passenger, six cylinder engine manual transmission, with all normally standard equipment listed by the manufacturer and required safety equipment.

Required to provide transportation to and from airports. DA's and general taxi service and/or mail runs as required. Also, to be used for scheduled bus service between areas of the CSA.

3.2.2 Bus, 17 Passenger

Spec. No. 2276

The bus will be a standard 17 passenger for transporting

**3.2.2 (continued)**

personnel.

It will provide transportation to rotate personnel between commercial transportation terminals, CSA and Dispatch Areas.

**3.2.3 Bus, 41 Passenger**

Spec. No. 2285-L

The bus will be a standard 41 passenger for transporting personnel.

Required to provide transportation for Boeing rotation personnel between commercial transportation terminals, CSA and Dispatch Areas on a periodic basis.

**3.2.4 Sedan, 4-Door, Standard and Compact**

Spec. No. 2272-L, Standard

Spec. No. 2271-L, Compact

The standard will be a Ford Galaxie, 4-door Town Sedan or equal. The compact will be a Falcon 4-door Sedan or equal. Either model is to have 6 cylinder engine and manual transmission. They can be of any conservative factory color except black. Seat covers, two sets of seat belts for the front seats and normally required safety equipment will be installed.

Required to provide transportation for administrative and technical personnel between town and base and to DA, LF and LCF facilities and the CSA.

3.2.5 Sedan, 4-Door, with Air Conditioner  
Spec. No. 2272-L

Same as standard 4-door Sedan except for an 8 cylinder engine and air conditioner.

Total two (2) per base. One (1) to be used by the SATAF Commander, and one (1) by The Boeing Company Base Manager. These are required to transport visiting dignitaries of the Air Force, Department of Defense, and The Boeing Company to base areas they may be interested in inspecting. Also, they will be used to transport visitors from the base to hotels, airports, etc.

3.2.6 Station Wagon, 6 Passenger, Standard and Compact  
Spec. No. 2272-L, Standard  
Spec. No. 2271-L, Compact

The 4-door Ranch Wagon or equal may be used for the standard model. The Ford Falcon 4-door wagon or equal may be used for the compact model.

Both models are to have 6 cylinder engines, manual transmission, seat belts for the two front seats, seat covers, and nominally required safety equipment. The paint can be any conservative factory color other than black.

Required for transporting of technical and administrative support personnel between town, DA's, LF, LCF and CSA when load requirements are greater than a sedan can accommodate.



3.2.7 Utility Wagon, 4 Wheel Drive

Spec. No. 2294-L

Standard 4-door utility wagon equipped with 4-wheel drive, capable of transporting 6 passengers including driver plus tool boxes, water cans under adverse operating conditions.

3.2.8 Truck, 6 Ft. Pickup Compact

Spec. No. 2295-L

Compact pickup truck, 3 passenger, open cargo type vehicle for transporting light loads. Ford Falcon Ranchero or equal will fulfill the requirements.

Required as a utility vehicle for general support of personnel. Will be used in the field by DOD, O&M, PDM and A&CO teams. Facilities and general operational and administrative support in the CSA and DA's.

3.2.9 Truck, Pickup, 6 1/2 Ft. with or without Canopy

Spec. No. 2273-L

Ford Model F-100 or equal. Standard 6 1/2 ft. styleside pickup box, with rear bumper, 6 cylinder engine, 4-speed manual transmission, interlocking differential, seat belts and standard safety equipment. An optional canopy may be needed when transporting tools and equipment in adverse weather conditions. Paint may be any conservative standard factory color other than black.

Required as a utility vehicle to support DOD, Cable Maintenance,

3.2.9 (continued)

O&M, PDM, and A&CO teams. For a utility vehicle by Facilities and general operational and administrative support in the CSA and DA's.

3.2.10 Truck, Pickup, 4-Wheel Drive  
Spec. No. 2279-L

Standard pickup truck with 6 cylinder engine, 4-wheel drive, 3 speed transmission, 2 speed transfer case. Warn front wheel hubs and standard safety equipment. Paint any conservative factory color except black.

Required by SATAF, DOD, and Boeing BISU in early survey and surveillance work in locating and getting to and from LF and LCF areas prior to establishment of roads by Civil Engineer contractors. This vehicle may also be required to support cable maintenance crews. It is capable of transporting small loads under adverse operating conditions.

3.2.11 Truck, 8 Ft. Pickup  
Spec. No. 2296-L

Standard 3/4 ton pickup truck, 3 passenger, open cargo type vehicle for towing mobile shelters and transporting light loads. Equipped with V-8 motor, 160 HP and ball type trailer hitch.

3.2.12 Truck, 8 Ft. Pickup with Camper  
Spec. No. 2287-L

3.2.12

(continued)

Ford Model F-250 pickup or equal, with conventional cab, V-8 engine, 4-speed transmission, western-type rear view mirrors and normal safety equipment. Camper similar to the "Chinook" equipped with seating, water and cooking facilities.

This vehicle is to be used as partial substitute for ACO 4119 Transport Erector Special Escort Van. As ACO 4119 becomes available this requirement will no longer exist.

Required to provide shelter and office area for emergency situations at LF's in lieu of Mobile Shelter ACO 375.

3.2.13 Truck 9 Ft. Flatbed Body

Spec. No. 2280-L

Standard 1 ton truck, open cargo type vehicle for transporting medium size loads. Equipped with eight cylinder, 160 HP, stake body and pentle self locking hook.

Used in the CSA to transport light equipment, furniture and office equipment.

3.2.14 Truck, 18 Ft. Flatbed with or without Liftgate

Spec. No. 2281-L, Without Liftgate

Spec. No. 2282-L, With Liftgate

Ford Model F-700 or equal with 185 HP engine, five-speed transmission and dual rear wheels. Flatbed body will be 18 ft. long by 8 ft. overall width with solid buckboard front and stake sides and rear. Liftgate 2000 lb. capacity.

3.2.14 (continued)

Required to transport office furniture and office equipment as required in CSA and DA's for general hauling from freight terminals to CSA and DA's, and transporting weapons system components and support equipment between CSA and DA's.

3.2.15 Trailer, Semi 40 Ft. Flatbed  
Spec. No. 2283-L

Trailmobile model Ww1-662 or equal, semi, trailer, with dual wheels, tandem axle, standard 5th wheel and 40 ft. by 8 ft. flatbed cargo area.

Required for transporting missile system components and support equipment not requiring environmental protection between railheads, freight terminals, Support Area, DA's, LF's and LCF's. Also to be used to move furniture and general support work in the CSA area. It will be pulled by ACO 4116 tractor.

3.3 NON-ACO IDENTIFIED LICENSED VEHICLE FORECAST

Figure two (2) contains the requirements of non-ACO vehicles requirements programmed by calendar month showing vehicle requirements for the present month, build-up through June, 1963. This schedule will be revised on the first of each month.

3.4 SATAF AND DOD REQUIRED LICENSED VEHICLES FORECAST

Figure three (3) contains those vehicle requirements which The Boeing Company is contractually required to supply for

3.4

(continued)

the Department of Defense personnel, including COAMA Detachment, Contractor Support Detachment, Geodetic Survey, Ground Electric Equipment Installation Agency, and SATAF commander and staff.

The vehicle forecast (Figure three (3)) contains SATAF requirements which are programmed by the calendar month, showing vehicle requirements for the present month, through June, 1964 requirements. The schedule will be revised on the first of each month.

#### 4.0 MAJOR ITEMS OF MATERIAL HANDLING EQUIPMENT

Major items of material handling equipment are those powered by a gasoline engine or electric motor other than the standard trucks and trailers found in Section 3.0.

#### 4.1 MATERIAL HANDLING EQUIPMENT DESCRIPTION AND USAGE

##### 4.1.1 Truck Forklift ACO Numbered

##### 4.1.1.1 ACO 3078, Truck, Forklift

This vehicle has the capability of being operated on paved or hard surface roads for short distances as well as warehoused wood or concrete floor. It is required to transport and lift cargo, tools and equipment in yards within the receiving docks of the CSA. It has a two ton capacity (4000 lbs)

ACO 3078 is equivalent to and interchangeable with Figure A 3078.

##### 4.1.1.2 ACO 4184, Truck, Forklift

The vehicle is a standard commercial, gasoline operated fork-lift truck. The truck has air inflated tires suitable for operating on paved roads and warehouse floors. It has a lift capacity of 15,000 lbs.

The truck is used at the CSA to handle the Missile Base Support Assembly during pre-assembly of the Support, Missile, Suspension and Alignment System. The Missile Base Support Assembly weighs approximately 7000 lbs.

4.1.1.2 (continued)

It will handle, transport, and position other material too heavy or bulky to be handled by smaller trucks.

This item is equivalent to Figure "A" 4184.

4.1.2 Truck Forklift, Non-ACO Numbered

4.1.2.1 Forklift 4000 lb.

The truck has a 4000 lb. capability, pneumatic tires and gas powered.

Required by Facilities and Services Unit at CSA. It will be used in the receiving warehousing, shop and other base areas to unload, transport and position A&CO equipment, furniture, material and supplies. It will also be used as a towing vehicle for bottle carts, portable water tanks, hydraulic service carts and similar carts or trailer-mounted equipment items.

4.1.2.2 Forklift, 6000 Lbs.

This forklift is being used as a substitute for the 4,000 lb. or partial substitute for the 8,000 lb. forklift. See paragraph 4.1.3.1 and 4.1.3.3 for specification and usage.

4.1.2.3 Forklift, 8000 Lbs.

This forklift has an 8,000 lb. capacity, pneumatic tires, gas powered, and winterized to -40 degrees.

#### 4.1.2.3 (continued)

The forklift is required to handle heavy pieces of equipment such as acetylene bottle carts, nitrogen bottle carts, water tanks and portable pumps. The units will be utilized at the GSA for unloading, kitting and warehousing of equipment and supplies. A requirement also exists to move contract equipment as required to accomplish functional test and maintenance operations within the CSA.

#### 4.1.3 Truck, Pallet, Electric Walkie, 4000 Lb. Capacity

This pallet truck is equipped with 42" fork length, 32" width and rubber cushion wheels.

The equipment is required by Logistics Control Group at the Contract Support Area (CSA). It is used to relocate operational ground equipment (OGE) throughout the Functional Test Area.

#### 4.1.4 Walkie Stacker

This unit is required by the warehouse personnel at the Contract Support Area. They are required for narrow aisle operation and placing pallets on storage racks. The stacker has a 2,000 lb. capacity. It also is used as a substitute item for transporting distilled water tanks to fill the missile Guidance and Control (G&C) cooling system.

#### 4.1.5 Truckster

Three-wheel scooter with cab and small truck box used in the



4.1.5 (co-ntinued)

CSA to transport personnel, small tools and equipment, short distances. Recommended manufactured Cushmen or equal.

4.2 MATERIAL HANDLING EQUIPMENT FORECAST

Figure four (4) contains the requirements of material handling equipment programmed by calendar month showing vehicle requirements for the present month, build-up through June, 1964. This schedule will be revised on the first of each month.

## 5.0 GENERAL INFORMATION

### 5.1 AIRCRAFT

Helicopter or fixed-wing aircraft are not included in this document, except when aircraft have been authorized by special request.

Any remote site having a requirement for aircraft transportation must submit a request with complete justification through Program Management Office for approval.

### 5.2 ACO/MGE/PECULIAR VEHICLES

The vehicles listed in this section are identical to equipment delivered to the Customer as part of the weapon system. They require special design and are peculiar to the Minuteman Weapon System.

#### 5.2.1 ACO/MGE/Peculiar Vehicle Description and Usage

##### 5.2.1.1 ACO 4024 - Re-entry Vehicle (R/V) and Guidance and Control (G&C)

###### Section Van

Semi-trailer van identical to Figure "A" 4024.

Used to transport the G&C section to the LF's and to install or remove G&C and/or dummy R/V section on the missile during A&CO.

##### 5.2.1.2 ACO 4031 - Truck, Van (Mechanical Maintenance)

5.2.1.2 (continued)

A van, mounted on a truck chassis (Figure "A" 4118) identical to Figure "A" 4031. Used to transport mechanical maintenance equipment and replacement parts between the LF, LCF or any part of the launch complex during the A&CO task.

5.2.1.3 ACO 4059 - Semi-Trailer, Transporter-Erector (TE)

This trailer carries the assembled missile and associated hardware to the LF's. It contains an environmental control and sounding alarm in event environmental failure or unauthorized entry. Able to erect TE to vertical position for missile emplacement. Identical to Figure "A" 4059. The ACO must be compatible with ACO 4075.

5.2.1.4 ACO 4062 - Vehicle, Operational, Targeting

Capable of operating in a wide range of weather conditions on secondary highways. Is equipped with the environmental control equipment, power distribution system to be compatible with LF's power system, communication equipment, hoist and crane (2,000 lb. capacity), tie-down shelves, and trailer tow bar. It is used at the LF's to activate and deactivate the missile and Operational Ground Equipment (OGE) in the launcher.

5.2.1.5 ACO 4063 - Truck, Van, Electronic Maintenance

The van will be mounted on truck chassis (Figure "A" 4118). It will be equipped with power distribution compatible with LF's power, 200 lb. hoist and crane, shelving, environmental equipment, and electrical replacement parts for LF's or LCF's during A&CO.

5.2.1.6 ACO 4075 - Truck, Tractor, Transport Erector (TE)

This tractor is to be equipped to supply auxiliary hydraulic power 20 hp take-off to drive hydraulic pumps, area lighting, electric power, air, chilled water, hot water, and security alarm to the TE.

It is used to move TEM (ACO 4059) to the LF's.

5.2.1.7 ACO 4119 - Truck, Van, Special Escort

Is identical to Figure "A"s 4031, 4062, 4063.

It is to accompany the TE at any time the TE is dispatched to and from the Strategic Missile Support Area (SMSA). The vehicle is fully equipped to handle emergency repairs.

5.2.1.8 ACO 4129 - Trailer, Missile Container & Transporter (MCAT)

The MCAT is provided for attaching to a truck-tractor (Figure "A" 4130). The container is used to carry the missile to and from CSA rail depot and airlines. Is provisioned with environmental control unit.



## 1

92-20031-6

1

**Revised 5-22-63**

ACO NO.	VEHICLE NOMENCLATURE	YEAR	19-63												19-64											
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	Forklift 8,000lb	QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								
		QTY ASSIGNED																								

D2-20631-6